

Prepared By:



412 Miller Street Municipality of Meaford Environmental Impact Study

Project No. 03-010-2022

December 2023



December 22, 2023

Harry Littler
12800 8th Concession
King City, Ontario
L7B 1K4

RE: BIRKS NHC File No. 03-010-2022
Environmental Impact Study - 412 Miller Street, Town of Meaford, County of Grey

Dear Mr. Littler:

Thank you for retaining Birks Natural Heritage Consultants, Inc. (Birks NHC) to prepare an Environmental Impact Study (EIS) for the property described above. It is our understanding that an EIS is required by the Town of Meaford as part of a submission package for a zoning amendment application and plan of subdivision for the property. The EIS has been completed to ensure that the proposed development/site alteration can be carried out in a manner that is consistent with environmental policies and complies with environmental law.

The purpose of this EIS is to identify and characterize the natural heritage features and functions present in the Study Area (as defined within this report) and to determine if potential impacts to those features and functions could arise from the proposed residential development. Birks NHC completed field surveys in 2022 and 2023 to review the existing conditions of the property with a focus on identifying and characterizing natural heritage features and functions, including potential Species at Risk habitat. Through assessment of information obtained during field surveys, review of background information, and consideration of applicable policies and regulations, it has been determined that natural heritage features and functions are limited to the presence of a watercourse and small woodland features present within adjacent lands.

The report provides an assessment of potential impacts associated with the proposed development and provides mitigation measures to reduce any potential impacts. If you have



any questions or concerns regarding this report, please do not hesitate to contact the undersigned.

Yours truly,

Birks Natural Heritage Consultants Inc.

Melissa Fuller, H.B.Sc
Ecologist

Stephanie Brady, H.B.Sc
Ecologist



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1 INTRODUCTION

Birks Natural Heritage Consultants, Inc. (Birks NHC) was retained by Harry Littler and Leah Ambler (collectively referred to as the 'property owner') to undertake the preparation of an Environmental Impact Study (EIS) for the proposed zoning amendment application and plan of subdivision of the property located at 412 Miller Street in the Municipality of Meaford. The EIS is required due to the potential for Fish Habitat, Species at Risk and Significant Wildlife Habitat within the property and adjacent lands. Furthermore, the property contains lands that are regulated by the Grey Sauble Conservation Authority (GSCA), associated with the presence of a mapped watercourse.

The objective of the EIS is to identify and characterize the potential functions associated with natural heritage features and functions present within the Study Area and determine if potential impacts to those features and functions could arise from the proposed development. The EIS is focused on potential ecological impacts which could result from the proposed plan of subdivision and has been prepared to address the natural heritage requirements of the Provincial Policy Statement (PPS, 2020), *Endangered Species Act* (ESA, 2007), *Fisheries Act* (1985), County of Grey Official Plan (2019), and the Municipality of Meaford Official Plan (2014).

1.1 SITE DESCRIPTION

The property is irregularly rectangular shaped, approximately 7.1 hectares (ha) in size and is located within a designated settlement/urban area of the Municipality of Meaford, approximately 1.3 kilometres (km) west of the Georgian Bay shoreline. The property contains an actively farmed field and associated structures (*i.e.*, shed, barn, residence) with hedgerow habitats containing limited mature trees. An unnamed watercourse originates within the central-north part of the property and flows north through adjacent lands, towards Georgian Bay. Adjacent lands contain rural and residential properties, situated along Gardiner Street, Nelson Street W., and Grey Road 12/Miller Street (Figure 1), with small woodland units present throughout adjacent lands.

1.2 STUDY AREA

For the purpose of this EIS, the Study Area is focused within an area approximately 120 metres (m) surrounding the property, as illustrated in Figure 1. The Ministry of Natural Resources and Forestry (MNRF) recommends a distance of 120 m for consideration of development and/or site alteration impacts to adjacent features, as outlined within the Natural Heritage Reference Manual (MNR, 2010).



412 Miller Street
Municipality of Meaford

- Property Limits
- 120m Study Area
- Watercourse (Tatham Engineering/LIO)
- Wetland (LIO)



2 ENVIRONMENTAL POLICY FRAMEWORK

The following summarizes the planning policies and regulations related to natural heritage that apply to the proposed development.

2.1 PROVINCIAL POLICY STATEMENT (2020)

Ontario's *Planning Act*, 1990 requires that planning decisions be consistent with the Provincial Policy Statement (PPS, 2020). Section 2.1 of the PPS specifies policy related to protection of natural heritage features and functions.

According to Section 2.1.4 of the PPS, development and site alteration shall not be permitted in the following features:

- a) Significant wetlands in Ecoregions 5E, 6E, and 7E; and,
- b) Significant coastal wetlands.

Additional features are protected by Section 2.1.5 of the PPS, which states that development and site alteration shall not be permitted in the following natural features unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions:

- a) Significant woodlands in Ecoregions 6E and 7E;
- b) Significant valleylands in Ecoregions 6E and 7E;
- c) Significant wildlife habitat;
- d) Significant areas of natural and scientific interest (ANSI); and
- e) Coastal wetlands in Ecoregions 5E, 6E, and 7E that are not subject to policy 2.1.4(b).

Sections 2.1.6 and 2.1.7 state that development and site alteration is not permitted in fish habitat or habitat of Endangered and Threatened species except in accordance with federal and provincial requirements.

Section 2.1.8 extends protection of those features defined above in policies 2.1.4, 2.1.5 and 2.1.6 to adjacent lands, typically those within 120 m of the potential impact. Section 2.1.8 states that development and site alteration shall not be permitted on adjacent lands to natural heritage features identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological function.

While many of these features are mapped and direction is available to allow for candidate features and functions to be identified, it remains the responsibility of the province and/or the municipality to designate areas identified within Section 2.1.4 and 2.1.5 of the PPS as significant. The Natural Heritage Reference Manual (MNR, 2010) and Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF, 2015) were used within this report to identify candidate features and functions not currently identified by the province and/or municipality.



2.2 ENDANGERED SPECIES ACT (2007)

Ontario's *Endangered Species Act* (ESA) provides regulatory protection to Species at Risk (SAR), prohibiting harassment, harm and/or killing of individuals (Section 9) and destruction of their habitats (Section 10). Habitat of the species is defined as the habitat features prescribed in the ESA; or, areas on which the species depends, directly or indirectly, to carry on its life processes, as described within reference documents (*i.e.*, species status reports and recovery strategies, technical reports, scientific articles) and based on internal data available from applicable agencies.

Ontario Regulation (O. Reg) 230/08 of the ESA identifies species at risk in Ontario and includes species listed as Extirpated, Endangered, Threatened, and Special Concern. Only species listed as Endangered and Threatened receive species and habitat protection through the ESA. Species designated as Special Concern may receive protection under the Significant Wildlife Habitat (SWH) provisions of the PPS.

2.3 FISHERIES ACT (1985)

The purpose of the federal *Fisheries Act*, 1985 is in part, to provide a framework for the conservation and protection of fish and fish habitat through the various regulations that protect against serious harm to fish by death or any permanent or temporary harmful alteration, disruption or destruction (HADD) to their habitat. Fish habitat is defined within the *Fisheries Act*, 1985 as "spawning grounds and any other areas, including nursery, rearing, food supply and migration areas, on which fish depend directly or indirectly in order to carry out their life processes". The fish and fish habitat protection provisions of the *Fisheries Act*, 1985 include:

- A prohibition against causing the death of fish, by means other than fishing (Section 34.4);
- A prohibition against causing the harmful alteration, disruption or destruction of fish habitat (Section 35);
- Establishment of standards and codes of practice in relation to works, undertakings and activities during any phase of their construction, operation, modification, decommissioning or abandonment for the avoidance of death to fish, HADD, and for the prevention of pollution (Section 34.2); and,
- Ministerial powers to ensure the free passage of fish or the protection of fish or fish habitat with respect to existing obstructions (Section 34.3).

The interpretation and application of the regulations of the *Fisheries Act*, 1985 is overseen by Fisheries and Oceans Canada (DFO). Under the direction of DFO, projects that have potential to affect fish and fish habitat are to be screened using their online guidance platform, 'Projects Near Water' to determine if the project will require review under the *Fisheries Act*, 1985. Projects that can not implement measures to mitigate impact to fish and fish habitat, and do not qualify under the current Standards and Codes of Practice, require review by DFO prior to any site disturbance or alteration, including vegetation removal and grading.



2.4 CONSERVATION AUTHORITIES ACT (1990)

Ontario's Conservation Authorities fall under the jurisdiction of the *Conservation Authorities Act, 1990* which was reviewed and amended most recently in 2022. The purpose of *Conservation Authorities Act* is to "provide for the organization and delivery of programs and services that further the conservation, restoration, development and management of natural resources in watersheds in Ontario". Section 28 of the *Conservation Authorities Act* states that a Conservation Authority may make the following regulations applicable in the area under its jurisdiction:

- Restricting and regulating the use of water in or from rivers, streams, inland lakes, ponds, wetlands and natural or artificially constructed depressions in rivers or streams;
- Prohibiting, regulating or requiring the permission of the authority for straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream or watercourse, or for changing or interfering in any way with a wetland;
- Prohibiting, regulating or requiring the permission of the authority for development if, in the opinion of the authority, the control of flooding, erosion, dynamic beaches or pollution or the conservation of land may be affected by the development; and,
- Provide for the appointment of officers to enforce any regulation made under this section.

A portion of the Study Area is regulated by Grey Sauble Conservation Authority (GSCA) in accordance with O. Reg. 151/06 - *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses* due to the presence of watercourses adjacent to the property (Appendix A).

2.5 COUNTY OF GREY OFFICIAL PLAN (2019)

The County of Grey Official Plan maps the property as within a Primary Settlement Area (Appendix B). Primary Settlement Areas are identified by the County of Grey as areas suitable for high intensification targets and have full municipal services. Land use policies and development standards in areas designated Primary Settlement Areas will be in accordance with local official plans (County of Grey, 2019, Section 3.5).

Hazard Lands include floodplains, steep or erosion prone slopes, unstable soils, poorly drained areas and lands along the Georgian Bay shoreline. Lands associated with streams adjacent to the property are mapped by the County of Grey as Hazard Lands (Appendix B). Buildings and structures are generally not permitted, and development and site alteration is not permitted within the floodway portion of the floodplain (County of Grey, 2019, Section 7.2). Further, the County of Grey generally encourages development be setback at least 30 metres from features such as wetlands and streams. In some cases, this 30 m distance can be reduced based on site specific circumstances or through the completion of a suitable site specific natural environmental assessment (County of Grey, 2019, Section 7.9).

Appendix A of the County of Grey Official Plan further maps the property as in an Intake Protection Zone and Events Based Area (Appendix B). Intake protection zones are areas of land and water, where runoff from streams or drainage systems, in conjunction with currents in lakes and rivers, could directly impact



the source water at the municipal drinking water intakes (County of Grey, 2019, Section 8.11.2). An Events Based Area is an area determined by modelling and other forms of analysis to be prone to contamination of untreated source water during extreme weather conditions. Any planning application for this property must review and address the applicable Source Protection Plan. Land use activities that have been identified by a source protection plan as being prohibited within designated vulnerable areas will not be permitted (County of Grey, 2019, Section 8.11.3).

2.6 MUNICIPALITY OF MEAFORD OFFICIAL PLAN (2014)

The property is within an area designated as Urban Living Area on Schedule A-1 of the Municipality of Meaford's Official Plan, with areas of adjacent lands designated as Environmental Protection in association with mapped watercourses (Appendix C). Lands designated Urban Living Area are the site of existing and planned residential development and complementary uses within the Meaford urban area. Permitted uses in the Urban Living Area designation include:

- single detached dwellings;
- accessory apartments in single-detached dwellings subject to Section B1.1.4 of the Official Plan;
- semi-detached dwellings;
- duplex dwellings;
- townhouse, multiple and apartment dwellings subject to Section B1.1.5 of the Official Plan;
- home occupations subject to Section B1.1.6 of the Official Plan;
- bed and breakfast establishments in single detached dwellings, subject to Section B1.1.7 of the Official Plan;
- private home daycare for up to five children; and,
- complementary uses such as residential care facilities, daycare centres, small-scale institutional uses and local commercial uses subject to Section B1.1.8 of the Official Plan.

The location of the Environmental Protection designation is considered to be generally accurate, particularly as it relates to hazard lands and floodplains (Municipality of Meaford, 2014, Section B3.1.2). No development shall be permitted on adjacent lands unless an EIS and/or a subwatershed study and/or a geotechnical study is completed demonstrating that there will be no negative impacts on the natural features or their ecological functions (Municipality of Meaford, 2014, Section B3.1.4.3).

The main by-law that implements the Official Plan is the Zoning By-law. The property is zoned Development (Appendix C). This zone applies to lands that are identified in the Official Plan as being suitable in principal for additional lot creation and new development. This zone also applies to lands within the Urban Area designation in the Official Plan not on full Municipal services. Permitted uses are limited to existing uses, single-detached dwellings and complementary accessory uses (Zoning By-law 60-2009, office consolidation July 2019). Adjacent areas to the property are zoned Environmental Protection in association with watercourses.



3 STUDY APPROACH

The following activities and assessments were undertaken to fulfill the objectives of this study. Pre-consultation was completed and a suitable Terms of Reference established with the GSCA and the County of Grey (Appendix D).

3.1 BACKGROUND DATA REVIEW AND SOURCES

Background documents provide information on site characteristics, habitat, wildlife, rare species and communities, and other aspects of the Study Area. For the purpose of this EIS, the following sources were considered:

- Ontario Breeding Bird Atlas Survey Square Summaries (Birds Canada, 2023)
- Land Information Ontario (LIO; MNRF, 2022)
- Natural Heritage Information Centre (NHIC; MNRF, accessed 2023)
- Species at Risk in Ontario List (MECP, 2023)
- Aquatic Species at Risk Map (DFO, 2023)
- The Ontario Freshwater Fishes Life History Database (Eakins, 2021)

3.2 FIELD SITE ASSESSMENT

Natural heritage features and functions within the Study Area were characterized through completion of field surveys. The following sections outline the methods used for the site assessment, including specific provincial protocols utilized. Incidental wildlife, plant and habitat observations were considered during all surveys. The dates when all surveys were completed are included in Table 1 below.

Table 1: Surveys Completed by Birks NHC

Date(s)	Type of Survey	Birks NHC Ecologist(s)
March 31, 2022, September 19, 2023	Fish Habitat Assessment	M. Fuller
August 17, 2023	Vegetation Survey	K. Tuininga
July 11, 2023 July 17, 2023	Bat Habitat Assessment – Structures (exit surveys)	M. Fuller B. Baker

3.2.1 Vegetative Community Mapping and Surveys

Vascular plants were considered during the site visits. A formal list typical of a multi-season vegetation survey was not compiled because the survey was limited due to the agricultural nature of the property. Plant species identified on the property are common locally and provincially, including *Solidago* sp., Wild Grape, Evening Primrose, Lamb's Quarters, Wild Carrot, Common Milkweed, Black Walnut, Trembling Aspen, and Manitoba Maple. No Species at Risk or provincially rare plant species were documented.



3.2.2 Bat Habitat Assessment and Exit Surveys

A habitat assessment was undertaken by Birks NHC ecologists with a focus on Little Brown Myotis, Northern Myotis, and Tri-colored Bat, all of which are provincially listed as Endangered species under O. Reg. 230/08 of the ESA. These species utilize a variety of habitats including rock crevices, buildings, bridges, caves, mines, and large snags in the early stages of decay. Although all three species are known to utilize wooded areas for roosting, Little Brown Myotis in Ontario has generally been restricted to anthropogenic structures. A visual inspection of the existing hedgerow trees and structures on the property was completed by Birks NHC ecologists throughout the 2022 and 2023 field surveys. Exit surveys were conducted on July 11 and July 17, 2023, following the completion of a bat habitat assessment within the property which identified potential anthropogenic bat habitat structures associated with the existing barn and residence. A both visual inspection of the exterior of the structures as well as exit surveys following the *Technical Note for SAR Bats* (MNR, 2015) were completed.

Acoustic monitoring was conducted in tandem with the exit surveys to aid in the identification of species and activity. Birks NHC Ecologists deployed two Wildlife Acoustic Song Meter SM4Bat Bioacoustic and two Wildlife Acoustic Echometer Touch 2 Pro Recorders at each identified structure to record ultrasonic calls that would be produced by a bat using the area. Surveys were conducted from one half hour before sunset to one half our after sunset under appropriate weather conditions (low wind, no precipitation).

Wildlife Acoustics Kaleidoscope Pro 3 Analysis Software was used to process the sound files. The Kaleidoscope program converted call data into individual files and was used to filter out false trigger noise such as rain and wind. Each file (or pass) which was confirmed as a bat call was classified with an identification using the Kaleidoscope software's bat classifiers. Call classification was confirmed and evaluated by Birks NHC ecologists.

3.2.3 Fish Habitat Assessment

A characterization of fish habitat was completed through assessment of feature morphology, flow regime and vegetation on March 31, 2022. No fish community information was available for the watercourse through background information sources such as LIO.

Fish habitat identified within the Study Area was assigned one of the following designations:

- Permanent direct fish habitat: a feature where flowing or standing water is present year-round and connected to known fish habitat;
- Seasonal direct fish habitat: a feature that provides direct habitat for fish under elevated water levels (during spring freshet and large storm events), but not under low water conditions, due to insufficient open water and refuge habitat or anoxic water quality conditions; and
- Indirect fish habitat: a feature where there is sufficient water to sustain aquatic invertebrates and plants and that discharges to direct habitat downstream. Fish cannot directly access the



area as a result of a barrier to upstream fish movement (*i.e.*, steep channel grade, low water levels, perched culvert).

Direct fish habitat is defined as habitat used by fish for spawning, rearing, feeding or migration. Indirect fish habitat is aquatic habitat that is generally not used by fish, but that provides base flow, nutrient inputs and food resources to direct fish habitats.

3.2.4 General Wildlife Surveys

A wildlife assessment within the property was completed through incidental observations while on site. Wildlife habitat functions were evaluated according to provincial criteria outlined in the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF, 2015).

3.3 SPECIES AT RISK

The Species at Risk assessment included an analysis of the habitat requirements of Species at Risk reported to occur in the region to identify those having potential to occur within the Study Area. Birks NHC staff reviewed data obtained through desktop review and the site visits related to potential habitat for provincially designated species, notably Species at Risk listed under O. Reg. 230/08 of the ESA as Threatened or Endangered.

Habitat requirements of Threatened or Endangered species with habitat ranges overlapping the property were considered to document the presence or absence of suitable habitat. Species specific surveys were undertaken where habitat availability and the proposed activity would interact with that habitat in a manner that could reasonably be expected to result in potential for accidental contravention of the ESA.

4 EXISTING CONDITIONS

4.1 VEGETATION COMMUNITIES AND PLANTS

The property is predominantly agricultural with an actively farmed field and associated structures (*i.e.*, shed, barn, residence). Natural vegetation is limited to a small thicket cluster comprised of Black Walnut and Red Raspberry encompassing a dump pile. Hedgerow conditions with various mature trees border the property along the north and west property limits. Vegetation on adjacent lands beyond the northern property limit consisted of coniferous forest at the western corner and mixed forest in the central portion (Figure 2).

4.2 WILDLIFE HABITAT

Given the agricultural nature of the property (*i.e.*, row crops), wildlife habitat function is limited to those that are observed in agricultural fields, disturbed settings, and anthropogenic structures. American Crow, Song Sparrow, and American Robin were documented on site. Individual bats were recorded



during the anthropogenic structure exit surveys, including a total of 4 recordings identified as *Myotis* species. Notwithstanding, no bats were visually observed exiting the identified structures during the surveys on July 11 and July 17, 2023.

An unnamed watercourse originates in the north end of the property within a depressed area, just north of the property limit. The watercourse collects overland flow from the farm field and flows diagonally north-east where it veers north and enters a defined channel conveyed along the neighbouring property boundaries to the north (Figure 2). The feature was flowing in March 2022; within the reach in proximity to the property line, the feature measured 2 m wide (wetted width) and 5 cm deep. Bare substrate was not visible; the area was thickly vegetated with phragmites, mowed lawn and undecomposed organic matter. This area did not appear to be easily accessible by fish, given the thick vegetation and shallow water. During a subsequent survey (September 2023) the feature had dried considerably, with no evidence of flow, though the ground was moist underfoot. Given the lack of permanent flow, the feature has been identified as seasonal, indirect fish habitat in proximity to the property. Given the temporal nature of the feature, no thermal assessment was completed.

A second watercourse travels north-east, south of Miller Street, approximately 60 m removed from the closest point of the property, which flows north-east towards the Big Head River and Georgian Bay. No fish community information is available for either of the identified features (*i.e.*, LIO), and no aquatic Species at Risk or critical habitat for those species is mapped within the area (DFO, 2023).

5 NATURAL HERITAGE FEATURES AND FUNCTIONS

In the following sections we summarize the range of natural heritage features and functions attributable to the Study Area based on existing designations/delineations by agencies and as revealed through the application of provincial guidelines for identification of significant natural heritage features and functions.

5.1 PROVINCIAL SIGNIFICANT WETLAND

There are no Provincially Significant Wetlands mapped on the property or within adjacent lands.

5.2 OTHER WETLANDS

No other wetlands are mapped within the Study Area (Figure 3) and Birks NHC did not observe any wetland features on the property.



412 Miller Street
Municipality of Meaford

Property Limits
Watercourse (Tatham Engineering/L10)

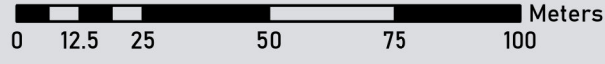
Vegetation Communities
1) THDM3: Dry - Fresh Deciduous Hedgerow Thicket
2) THDM2: Dry - Fresh Deciduous Shrub Thicket
3) OAGM1: Annual Row Crops
4) Maintained / Antropogenic Structure

Bat Survey Location

Figure 2:
Existing Conditions



MAP DRAWING INFORMATION:
DATA PROVIDED BY: ESRI CANADA
MAP CREATED BY: HM
MAP CHECKED BY: MF
MAP PROJECTION: NAD 1983 UTM ZONE 17N



FILE LOCATION:
Path: C:\Users\S_Brady\BirksNHC\Birks NHC Team for all - Documents\Project Folders\04 - SBrady Projects\ArcGIS - Projects here\Projects - here\03-010-2022 412 Miller St
PROJECT: 03-010-2022 STATUS: DRAFT DATE: 06/12/2023



5.3 SIGNIFICANT WOODLANDS

The County of Grey maps Significant Woodlands on Appendix B of the Official Plan (2019) and The Municipality of Meaford maps Significant Woodlands on Schedule B to their Official Plan (2014); there are no Significant Woodlands mapped by either municipality in the Study Area (Figure 3). Further, there are no woodlands on the property or adjacent lands that would be considered Significant Woodlands, based on the Natural Heritage Reference Manual woodland size criteria (MNR, 2010); both woodlands within the Study Area measure 1.2 ha in size. Further, the adjacent woodlands units would not be considered significant based on lack of habitat functions associated with Significant Woodland including interior habitat, provision of linkage between two other natural heritage features, unique species composition, age or structure, and low economic or social values.

5.4 SIGNIFICANT VALLEYLANDS

The County of Grey maps Significant Valleylands on Appendix B of the Official Plan (2019); no Significant Valleylands are mapped within the Study Area. The Natural Heritage Reference Manual defines valleylands as *a natural area that occurs in a valley or other landform depression that has water flowing through or standing for some period of the year* (MNR, 2010, pg. 74). Significance is determined in regard to other significant natural heritage features and areas, and contribution to the quality and diversity of the area or natural heritage system. No candidate Significant Valleyland features were identified on the property by Birks NHC ecologists.

5.5 SIGNIFICANT WILDLIFE HABITAT

The Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF, 2015) was reviewed as part of this study to determine whether any portions of the Study Area would meet the criteria. Habitat and species data sources were reviewed in addition to field data gathered by Birks NHC ecologists. The SWH assessment table was not compiled for inclusion in this report but can be provided upon request. The following presents those SWH functions potentially occurring within the Study Area:

5.5.1 Seasonal Concentration Areas of Animals

As outlined within the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E, Seasonal Concentration Areas are areas where wildlife species occur annually. These seasonal aggregations result in large numbers of individuals, sometimes highly concentrated within relatively small areas. As a result, the loss of, or damage to, these features can result in a significant impact to populations.

Bat Maternity Colonies

Bat Maternity Colonies for Silver-haired Bat and Big Brown Bat are identified as candidate SWH because known locations of forested bat maternity colonies are extremely rare in Ontario. According to Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF, 2015), maternity colonies located in mature deciduous or mixed forest stands with more than 10 large diameter (greater than 25 cm diameter at breast height) wildlife trees per ha are candidates for SWH designation.



Given the agricultural nature of the property and lack of woodlands, it was determined that no SWH for Bat Maternity Colonies is present on the property. Limited mature trees within the hedgerow communities were scattered throughout the property borders. No clusters of suitable mature trees containing suitable bat roosting features were identified during the field surveys. The woodland communities adjacent to the property, however, may contain standing dead and dying mature trees with suitable bat roost features. Therefore, potential bat roost habitat is considered to be present in the adjacent forested communities.

Note that while bat maternity colonies can be found in buildings, buildings are not considered to be SWH (MNRF, 2015).

5.5.2 Habitat for Species of Conservation Concern

Habitat for all Special Concern and provincially Rare (S1-S3, SH) plant and animal species is considered SWH. Habitat for Species of Conservation Concern does not include habitats of Endangered or Threatened species as identified by the ESA. The following Special Concern wildlife species were identified as potentially occurring within the Study Area:

Eastern Wood-pewee (Special Concern)

The Eastern Wood-pewee is a small forest bird that lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It is most abundant in intermediate-aged forest stands with little understory vegetation (MECP, 2021). Probable breeding evidence for Eastern Wood-pewee has been recorded in the area (Birds Canada, 2023). Habitat may be present in the woodlands communities located to the north of the property.

Snapping Turtle (Special Concern)

The Snapping Turtle occurs in almost any freshwater habitat including small wetlands, ponds, and ditches. This species has recent occurrences recorded in the Ontario Reptile and Amphibian Atlas survey grid square 17NK33 which encompasses the Study Area (Ontario Nature, 2023). Given the lack of suitable habitat features in proximity to the property (*i.e.*, wetlands or ponds that would provide overwintering and foraging habitat), the species is unlikely to be associated with the property.

5.6 AREAS OF NATURAL AND SCIENTIFIC INTEREST

No Areas of Natural and Scientific Interest are located within the Study Area.

5.7 FISH AND FISH HABITAT

Both drainage features identified within the Study Area likely provide and/or contribute to fish habitat. The ephemeral nature and thick growth of vegetation, phragmites and cattails within the northern feature qualifies this feature as indirect fish habitat, contributing organics and benthic organisms (nutrients) to permanent fish habitat communities downstream.



The southern drainage feature is more than 60 m removed from the property limits, and thus no impact to this feature is anticipated as a result of development of the property.

5.8 HABITAT OF THREATENED AND ENDANGERED SPECIES

The habitat requirements of species listed as Threatened and Endangered under the ESA were considered in relation to the habitat features noted within the property limits and the adjacent lands. Based on data available, it was determined that potential habitat for Endangered species may be present in the area. Of the species identified, the following are relevant to the Study Area and are therefore considered further:

5.8.1 Red-Headed Woodpecker (Endangered)

Red-headed Woodpecker is a medium sized bird that can be found in a variety of treed habitats, particularly those that contain snags (dead or partially dead trees) for nesting. Red-headed Woodpecker can be found in deciduous treed habitats, woodland edges, open woodlands, and areas such as orchards, parks, golf courses, and cemeteries. This species is found across southern Ontario, where it is widespread but rare. This species has only been recorded in 11% of the Breeding Bird Atlas squares in the region, however breeding evidence was recorded within the survey square 17TNK33 that encompasses the Study Area (Birds Canada, 2023). Potential habitat has been considered present in the Study Area woodlands outside of the property limits. Although formal breeding bird surveys were not conducted as part of this study, no suitable habitat for this species is present within the property.

5.8.2 Butternut (Endangered)

Butternut is a small to medium sized deciduous tree that is listed as an Endangered species in Ontario. The Endangered status of Butternut is based on observed declines due to a fungal disease known as Butternut Canker that often results in tree mortality. This tree species can grow in a variety of treed and open habitats, individually or in small groups. Disturbed areas (*i.e.*, fencerow, road, trail) are more likely to have Butternut because the tree species is intolerant of shade and requires open sunlight, however Butternut can also occur in forested communities in a canopy opening or near the forest edge. Potential habitat was assessed as being present in the Study Area however no Butternut trees were observed on the property.

5.8.3 Endangered Bat Species

Assessment of the characteristics of woodlands as they relate to potential use by Endangered bat species (Little Brown Myotis, Northern Myotis, Tri-colored Bat, and Eastern Small-footed Myotis) has become a consideration in land development. Important habitat functions for bats include hibernacula, maternity roost, day roosts, and foraging habitat. Of these habitat types, no features with potential to function as hibernacula exists within the Study Area.

Day roosts are those that are used by males and non-reproductive females as they move across the landscape and can take the form of any tree with appropriate snag features such as loose bark, cracks or



crevices. Maternity roosting habitat is found in woodlands providing a relatively high density of large wildlife cavity trees (*i.e.*, snags). The woodlands present within and adjacent to the Study Area may contain standing dead and dying mature trees with suitable bat roost features. On-site bat roosting habitat assessment conducted by Birks NHC ecologists determined that the limited mature trees within the hedgerow communities were not of sufficient quantity to support a maternity colony.

No bats were observed exiting the anthropogenic structures and therefore an anthropogenic roost is not expected to be present within the property. Although *Myotis* species were recorded during the exit survey, these individuals were likely foraging within the open areas of the property. Potential foraging habitat would be associated with woodland and wetland areas that provide an abundance of flying insects.

5.9 NATURAL HERITAGE FEATURES AND FUNCTIONS SUMMARY

The results of the site visits, review of background information and analysis indicate both confirmed and candidate natural heritage features and functions to be associated within the Study Area. Our impact assessment will consider potential impacts only to features and functions summarized in Table 2 below.



Table 2: Natural Heritage Features and Functions Summary

Natural Heritage Feature and/or Function	Within Property	Within 120 m of Property	Actions Required
Provincially Significant Wetland	None	None	No actions required.
Other Wetland	None	None	No actions required.
Significant Woodlands	None	None	No actions required.
Significant Valleylands	None	None	No actions required.
Significant Wildlife Habitat	None	<u>Candidate</u> - Bat Maternity Colonies - Habitat for Species of Conservation Concern	Evaluation for potential impacts required.
Provincial Areas of Natural and Scientific Interest	None	None	No actions required.
Fish Habitat	None	Indirect Fish Habitat	Evaluation for potential impacts required.
Habitat of Threatened or Endangered Species	None	<u>Potential</u> - Red-headed Woodpecker - Butternut - Endangered Bat Species	Evaluation for potential impacts required.



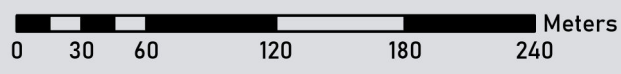
412 Miller Street
Municipality of Meaford

- Property Limits
- 120m Study Area
- Watercourse (Tatham Engineering/LIO)
- Wetland (LIO)
- Woodlands
- Grey County OP Significant Woodlands

Figure 3:
Wetlands and Woodlands



MAP DRAWING INFORMATION:
DATA PROVIDED BY: ESRI CANADA
MAP CREATED BY: HM
MAP CHECKED BY: MF
MAP PROJECTION: NAD 1983 UTM ZONE 17N



FILE LOCATION:
Path: C:\Users\S_Brady\BirksNHC\Birks NHC Team for all - Documents\Project Folders\04 - SBrady Projects\ArcGIS - Projects here\Projects - here\03-010-2022 412 Miller St
PROJECT: 03-010-2022 STATUS: DRAFT DATE: 06/12/2023



6 IMPACT ASSESSMENT

The intent of this study is to identify natural heritage features and functions associated with the Study Area and determine if potential ecological impacts could result from the proposed development. Impacts are evaluated on the current knowledge of the property based on data collected in 2022 and 2023 by Birks NHC ecologists.

6.1 DEVELOPMENT PLAN

The proposal involves the creation of single detached residential lots, townhomes, and a condominium block (Figure 4) that will utilize municipal services. An 'Environmental Protection' block has been established to protect the existing watercourse to the north of the property. The block encompasses the feature and a 10 m setback, including a 5 m 'no touch' zone and a 10 m graded and naturalized area. The area between 5 and 10 m will be restored with native plantings to enhance the setback function. The stormwater management dry pond 'wetland' will be constructed to outlet to the adjacent existing watercourse. It is our understanding that the pond has been designed to exceed the minimum length to width ratios, with the outlet outside of the 10 m setback. The outfall is designed as a level spreader that will sheet flow through the setback into to the northern drainage feature (Figure 4).

6.2 DIRECT IMPACTS

Based on the field surveys completed by Birks NHC in 2022 and 2023, no natural heritage features and functions were identified within the property limits. Notwithstanding, adjacent lands have been deemed to contain natural heritage features and functions associated with fish habitat and woodland habitat. No development or site alteration is proposed within a natural heritage feature, fish habitat or habitat of Endangered or Threatened species.

Direct impacts are those that are immediately evident as a result of a development. Typically, the adverse effects of direct impacts are most evident during the site preparation and construction phase of a development. Potential impacts of the proposed development are the following:

- Tree and vegetation removals;
- Erosion and sedimentation into natural heritage features;
- Changes to the hydrology/water quality entering sensitive features; and

In the following sections we assess the potential for negative ecological impact to the identified natural heritage features and functions.

6.2.1 Vegetation and Structure Removals

The site plan involves the creation of townhouse units, single units, stormwater management areas, open space, condominium block, and an Environmental Protection ('EP') block. Vegetation removals the property limits are limited to maintained areas in proximity to the residence, and fallow field in proximity to the central barn. In addition, vegetation removals would occur within the active



agricultural field and edge habitats, including within the THDM3 and THDM2 vegetation communities. No identified natural heritage features or functions are associated with these communities, including candidate Significant Wildlife Habitat and habitat for Threatened and Endangered species.

Given the presence of woodland habitats within the adjacent lands, it is recommended that tree protection measures in proximity to the woodlands be considered; for the application, tree protection can be achieved with the installation of sediment and erosion control fencing along the property limits.

The existing anthropogenic structures, including the dwelling, garage, and barn will be removed as part of the proposed development. As discussed, no habitat for Endangered bat species was identified within those structures. Notwithstanding, future establishment of these species may occur, dependent upon the maintenance of the structures. Additional screening is recommended prior to the demolition of these structures to ensure the works are not in contravention of the ESA. See Section 7 for further details.

Given the minimal vegetation removals and the lack of habitat for Endangered Bat Species associated with the anthropogenic structures, there is no expectation that the proposed development will have any direct ecological impacts on natural heritage features and functions as a result of vegetation and structure removal.

6.2.2 Erosion and Sedimentation into Natural Heritage Features

No works are proposed within the identified indirect fish habitat feature present within adjacent lands to the north. Furthermore, an 'Environmental Protection' block, comprised of a 5 m 'no touch' watercourse setback, and a 10 m buffer (setback) will be implemented as part of the proposed development to ensure no negative ecological impacts occur on this feature (Figure 4). At this time, the 5 m setback is comprised of active agricultural fields and thus naturalization of this area would be an improvement over the existing condition. It is recommended that a native riparian seed mix be broadcast within the 5 m setback at project initiation, prior to installation of erosion and sediment controls.

Grading is proposed to occur between the 5 m and 10 m setback, in order to allow for construction of the stormwater outfall (Figure 4). Once the installation is complete, restoration activities (stabilization and naturalization with a native riparian seed mix) will occur to restore the area to a natural, vegetated state.

Notwithstanding, construction activities, especially operations involving the handling of earthen material, increases the availability of sediment for erosion and transport by surface drainage. In order to mitigate the adverse environmental impacts caused by the release of sediment-laden runoff into receiving woodlands and wetlands, measures for erosion and sediment control are required for construction sites.



Any potential direct impacts to indirect fish habitat which could result from sedimentation can be mitigated through the application of erosion and sediment controls along the development limit and edges of the proposed soil disturbances. It is our understanding that erosion and sediment control measures will be implemented prior to and during the development and maintained until the site is stabilized.

6.2.3 Changes to the Hydrology/Water Quality Entering Sensitive Features

Alteration of land use may influence surface water run-off and water quality entering the identified indirect fish habitat, hydrologic feature present within adjacent lands to the north. Lot level water quality controls such as limiting lot coverage with hard surfaces and avoiding inappropriate disposal of deleterious substances (oil, gas, paint, etc.) can eliminate this risk.

As previously mentioned, the existing northern drainage feature on adjacent lands will be retained within a 5 m 'no-touch' watercourse setback, and a 10 m naturalized buffer (setback) to protect the feature from the impacts of the proposed change. There will be some grading required within the 10 m naturalized buffer.

Tatham Engineering has undertaken site-specific pre- and post-development drainage studies, and a Stormwater Management Plan will be provided as part of the submission. It is our understanding that the proposed stormwater management facility (SWMF) has been designed as an engineered wetland in accordance with MECP guidelines to provide stormwater quantity storage and enhanced water quality protection. Three outlets were identified for the development site. Under proposed conditions, the existing drainage patterns will be generally maintained. The facility has been designed with a permanent pool elevation of 207.20 m. Stormwater quality control will be provided by the end of pipe wetland SWMF. This facility has been designed to achieve enhanced level water quality protection corresponding to 80% Total Suspended Solids (TSS) removal for its upstream drainage area (Tatham 2023). Although the thermal regime of the northern feature was not determined, the SWMF has been designed to promote cooling of water through optimization of the pond dimensions, outlet construction and built form (*i.e.* wetland) which are all intended to limit warming within the system and thus negate thermal impacts to the receiving drainage feature.

There is no expectation that post-development drainage conditions would result in changes to the hydrology of the identified hydrologic feature. No direct impacts are expected to occur to the hydrology of the indirect fish habitat and receiving downstream habitats provided the SWM design and mitigation measures are applied accordingly.



6.3 INDIRECT IMPACTS

Indirect impacts are those that do not always manifest in the core development area but in the lands adjacent to the development. Indirect impacts of the proposed development have been identified below.

6.3.1 Anthropogenic Disturbance

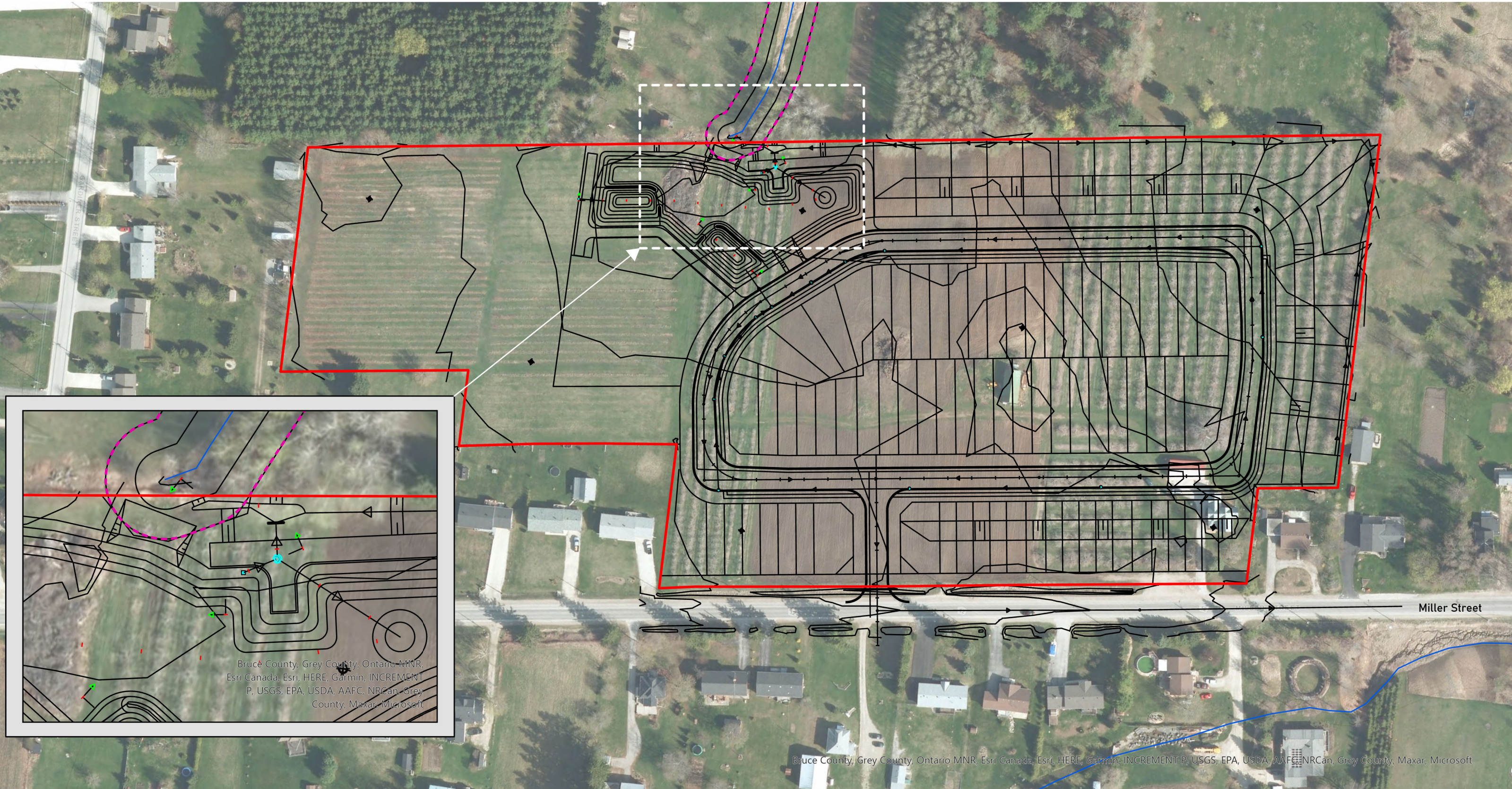
Wildlife tolerance to human presence varies; while some species are highly tolerant and are common in developed areas (*i.e.*, Grey Squirrel, Raccoon), other species are more sensitive to human presence and disturbance. A residential development will bring increased human presence and associated anthropogenic disturbances in the form of increased noise and light, predation by pets, and supplemental feeding (*i.e.*, people depositing food for deer in the winter). These impacts would be more prominent when a new development is proposed in un-developed areas.

Increased noise and artificial lighting from a residential development may interfere with wildlife reproduction, movements and communications by interrupting breeding or alert calls, startling individuals, or causing accidental harm (*i.e.*, bird flying into windows). In addition, the increased presence of predators (cats and dogs) can have a negative impact on the local wildlife by increasing the incidence of injury or death of local wildlife populations.

However, given that the development is an active agricultural field and proposed within an area that is generally developed with nearby residential homes and roads, the area has already experienced impacts from human presence. The proposed development, while it will result in an increase of human development and residence, is not expected to result in a significant intensification of indirect human impacts and therefore ecological impacts are not anticipated to occur.

6.3.2 Increased Potential for Invasion of Non-native Species

Site disturbance may increase the likelihood that non-native and/or invasive vegetation species will become established within the retained vegetation communities. Additionally, if construction equipment is not properly cleaned between use, invasive species transport may occur. Currently, there is a number of exotic (non-native) species within the Study Area. It is recommended that a plan be created and implemented to control invasive species within the area. Management and control measures are provided in Section 7 below.



412 Miller Street

Municipality of Meaford

Figure 4:
Site Plan

 Property Limits

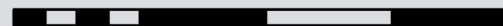
 Watercourse (Tatham Engineering/LIO)

 10m Watercourse Setback



MAP DRAWING INFORMATION:
DATA PROVIDED BY: ESRI CANADA
MAP CREATED BY: HM
MAP CHECKED BY: MF
MAP PROJECTION: NAD 1983 UTM ZONE 17N



 Meters
0 12.5 25 50 75 100

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PROJECT: 03-010-2022 STATUS: DRAFT DATE: 19/12/2023



6.3.3 Release of Contaminants

Development may result in the increase of contaminants (*i.e.*, sediments, salt, gasoline, oil) in surface runoff, which may affect nearby aquatic features. In order to mitigate the impacts of development, stormwater management controls and water quality approaches are required. The stormwater management design for the property will incorporate the policies and criteria of a number of agencies and follow municipal and provincial guidelines. Thus, release of contaminants is not anticipated as a result of the development.

7 RECOMMENDATIONS AND MITIGATION MEASURES

Mitigation refers to the avoidance or reduction of impacts associated with the proposed works through best management practices. As previously discussed, potential impacts were identified which could result to the identified natural heritage features and functions associated with the Study Area. Where applied correctly, mitigation is intended to reduce the potential for impacts to ensure that the natural heritage features and functions will continue uninhibited by the proposed development. Thus, mitigation would be required to ensure that there is no negative impact, and the development can proceed in conformity with the relevant planning documents and in compliance with environmental law.

7.1 SPECIES AT RISK

7.1.1 General

Given the dynamic character of the natural environment, as well as changes to policy (*i.e.*, new species listing), consideration is recommended in the interpretation of potential presence of Threatened or Endangered species as protected under the ESA.

This report was produced based on the most up-to-date policy information however, it is not intended to act as a long-term assessment of potential species at risk. The ESA is recognized as being a 'proponent-driven' piece of legislation and therefore it is the responsibility of the landowner/developer to ensure compliance with the regulations made under this act. It is recommended that a review of the assessment provided within this report be undertaken by a qualified ecologist to ensure compliance with the ESA at the time of site alteration.

All current Threatened or Endangered species listed under O. Reg. 230/08 made under the ESA with a currency date of November 30, 2023 have been considered within this report.

7.1.2 Timing Windows

Site alteration and vegetation removals should occur outside of the active breeding/roosting/nesting season for all bat at risk species and birds that may utilize the property. Therefore, tree cutting should be timed to occur between October 1 to March 31 and no cutting activity in forested areas should occur outside that period. This will ensure that no bats actively roosting in trees will be accidentally killed or



harmful as a result of clearing activities and will be outside of the breeding bird timing window. If the work schedule requires that site alteration be completed during the active season, screening by an ecologist with knowledge of species present in the area should be undertaken to ensure that the risk of impacting species at risk has been evaluated and assumed to be low to non-existent.

7.2 MIGRATORY BIRDS

Construction activities involving the removal of vegetation should be restricted from occurring during the bird breeding season. Migratory birds, nests, and eggs are protected by the *Migratory Birds Convention Act*, 1994 and the *Fish and Wildlife Conservation Act*, 1997. Environment Canada outlines dates when activities in any region have potential to impact nests at the Environment Canada Website (<https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds.html>)

For this location, vegetation removal should be avoided between April 1st and August 30th of any given year. If vegetation clearing is required between these dates, screening by an ecologist with knowledge of bird species present in the area should be undertaken to ensure that the vegetation has been confirmed to be free of nests prior to clearing.

7.3 OPERATIONS

7.3.1 Materials and Equipment

Development activities should be contained within the proposed development area. This area should be appropriately delineated prior to beginning construction to ensure that no accidental deviation from the intended removals will occur.

Equipment maintenance during and post construction should be undertaken in an appropriate area. Tool and vehicle maintenance and cleaning should be undertaken in areas removed from the retained natural areas in a manner that does not encourage the movement of cleaning or maintenance products including cleaners, oils or fuel into the neighboring forested areas. Fuel and chemical storage should follow appropriate legislation to ensure that it is maintained and stored in a way that will not result in accidental release or spills to the neighboring natural areas.

7.3.2 Sediment and Erosion Control

It is recommended that sediment and erosion controls along the limits of the development areas be installed prior to all construction activities. Sediment and erosion controls are to be installed prior to all construction activities and remain in place until site works have been completed and the risk of sedimentation is no longer a concern. No development activities (*i.e.*, material and equipment storage, grading, equipment activity) are permitted within the adjacent retained natural areas.



7.4 NATURALIZATION OF SETBACK

It is recommended that the EP block be naturalized with native herbaceous, shrubby and woody species which will aid in minimizing impacts to the retained natural heritage features north of the property. Naturalization of the 5 m setback should occur at the outset of site alteration. Naturalization of the remaining 10 m setback should occur immediately after final grade is achieved.

7.5 GENERAL MITIGATION PLAN

General mitigation of potential impacts to identified natural features and functions during construction include:

- Erosion and sediment controls should be implemented to protect adjacent features. Control measures should remain in place until site works have been completed and the risk of sedimentation is no longer a concern.
- Refueling of all equipment should occur at least 30 m from retained natural features.
- Control potentially contaminated materials (*i.e.*, fill, soil, gravel, excavated materials) moved by equipment during construction to prevent the spread of invasive plants.
- Inspect and clean equipment and vehicles prior to allowing access to the property to prevent the spread of invasive plant species into the site.
- Make sure that all equipment, boots, clothing etc. are cleaned at the site to ensure seeds from invasive plants are not transported from the site.
- Should an animal be injured or found injured during the construction phase, they should be transported to an appropriate wildlife rehabilitation centre.

8 CONCLUSIONS

This EIS was prepared for the zoning amendment application and plan of subdivision for the property located at 412 Miller Street in the Municipality of Meaford. Based on the field surveys completed by Birks NHC in 2022 and 2023, no natural heritage features and functions were identified within the property limits. The EIS is required due to the potential for Species at Risk and Significant Wildlife Habitat within the property and adjacent lands.

The purpose of this EIS was to identify and characterize the natural heritage features and functions present within and adjacent to the proposed development area and to determine if potential impacts to those features and functions could arise from the proposed development. Through the site visits, review of background information, and applicable policies and regulations it was determined that potential ecological impacts are mitigable provided the listed mitigation measures are applied accordingly.



9 REFERENCES

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<https://www.ontarioinsects.org/herp/index.html?Sort=6&area2=squaresCounties&records=all&myZoom=5&Lat=42.95&Long=-81.01>
- O. Reg. 230/08: Species at Risk in Ontario List. 2023. <https://www.ontario.ca/laws/regulation/080230>



Appendix A

Grey Sauble Conservation Authority Regulation Map



<https://www.greysauble.on.ca/mapping-gis/grey-sauble-conservation-authority-regulations-mapping/>

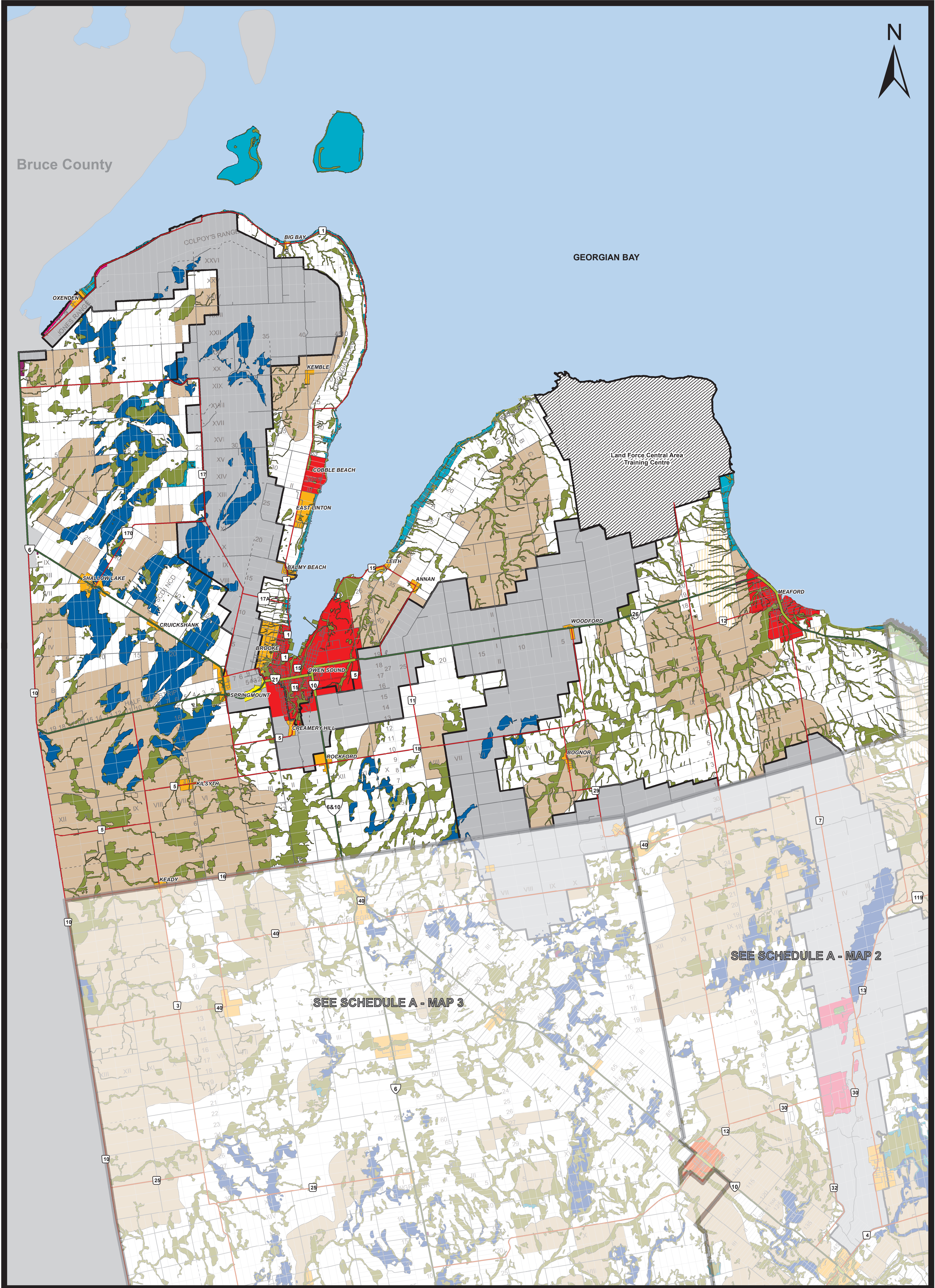




Appendix B

County of Grey Official Plan Land Use and Constraints Maps





THE COUNTY OF GREY
OFFICIAL PLAN

**SCHEDULE A
Land Use Types**

MAP 1

LEGEND

- Provincial Highway Connecting Link
- Provincial Highway
- County Road
- Local Road
- Seasonal Road
- Agricultural

- Special Agricultural
- Rural
- Primary Settlement Area *
- Secondary Settlement Area *
- Inland Lakes & Shoreline
- Recreational Resort Area
- Sunset Strip Area
- Industrial Business Park

- Space Extensive Industrial and Commercial
- Niagara Escarpment Plan Boundary **
- Niagara Escarpment Development Control Area
- Escarpment Recreation Area
- Hazard Lands
- Provincially Significant Wetlands and Significant Costal Lands

* refer to Secondary Schedules for further detail.
** certain settlement areas within the Niagara Escarpment Plan Boundary may be subject to Development Control.

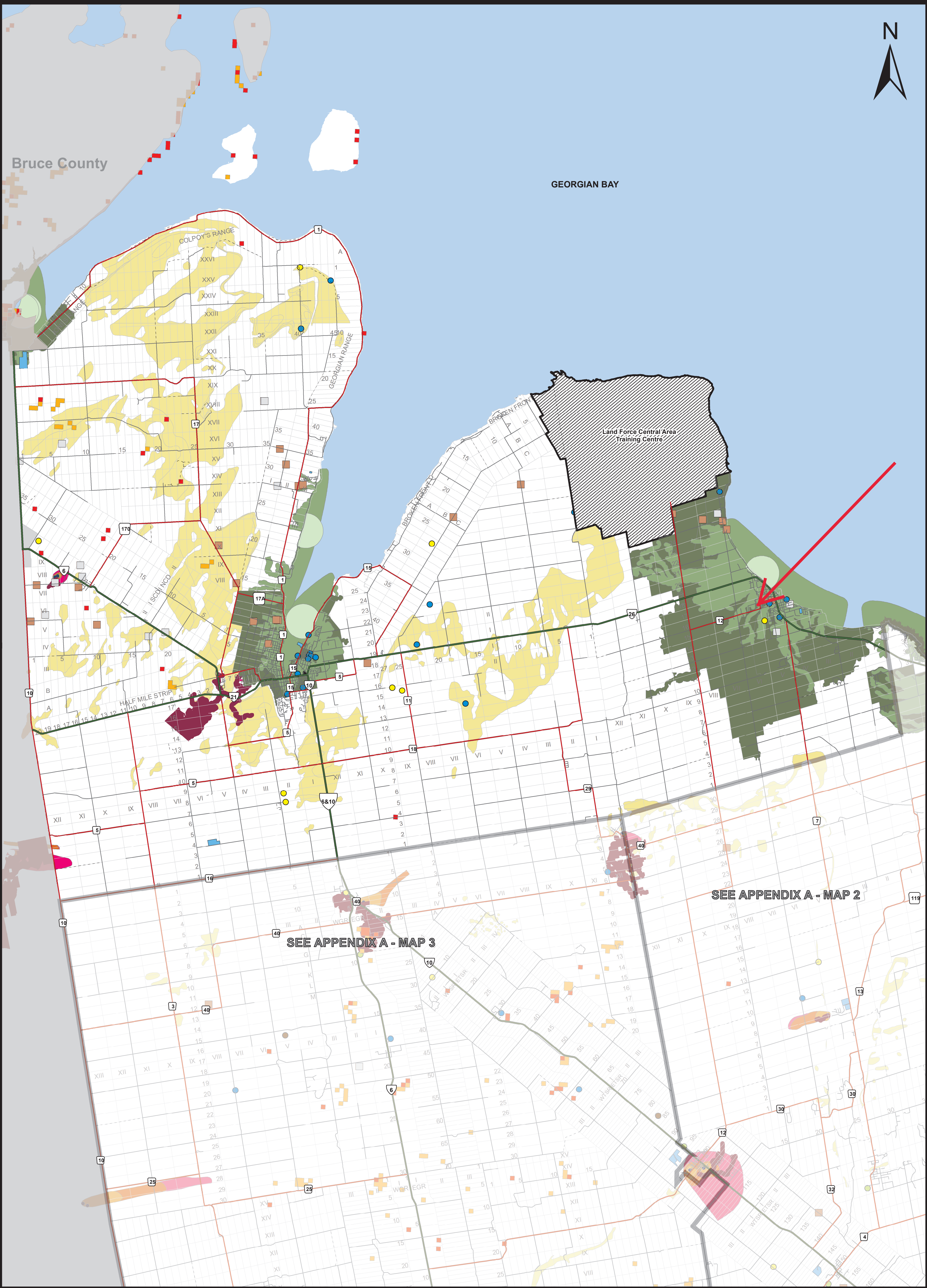
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FILE NAME: GR_OP_SchedA_Map1northX36.mxd
APPLICATION: ArcMap
DATE: June 7, 2019
PROJECTION: UTM zone 17N / NAD83
SOURCE: Teranet, Ministry of Natural Resources and Forestry

INTERACTIVE MAP: geo.grey.ca
DOWNLOAD PDF: grey.ca/planning-development

This map is for illustrative purposes only. Do not rely on this map as being a precise indicator of routes, location of features or surveying purposes. This map may contain cartographical errors or omissions.



THE COUNTY OF GREY
OFFICIAL PLAN

**APPENDIX A
Constraint Mapping**

MAP 1

LEGEND

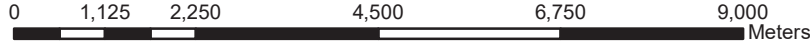
- Provincial Highway
- County Road
- Local Road
- Seasonal Road

- Petroleum Wells**
- Plugged Well
 - Unplugged Well

- Intake Protection Zone 1
 - Intake Protection Zone 2
 - Intake Protection Zone 3 Events Based Area
- Wellhead Protection Areas**
- Zone A
 - Zone B
 - Zone C
 - Zone D
 - Zone E

- Abandoned Landfill: D-4 Recommended to Clear Site
- Abandoned Landfill: Previously Evaluated Site
- Abandoned Landfill: Cleared Site
- Operating Landfill
- Karst Area
- Wastewater Treatment Facility
- Hazardous Forest Types for Wildland Fires - Extreme
- Hazardous Forest Types for Wildland Fires - High

SCALE 1:95,000



AUTHOR: Grey County Planning and Development
FILE NAME: GR_OP_ApdxA_Map1northX36.mxd
APPLICATION: ArcMap
DATE: June 7, 2019
PROJECTION: UTM zone 17N / NAD83
SOURCE: Teranet, Ministry of Natural Resources and Forestry

INTERACTIVE MAP: geo.grey.ca
DOWNLOAD PDF: grey.ca/planning-development

This map is for illustrative purposes only. Do not rely on this map as being a precise indicator of routes, location of features or surveying purposes. This map may contain cartographical errors or omissions.

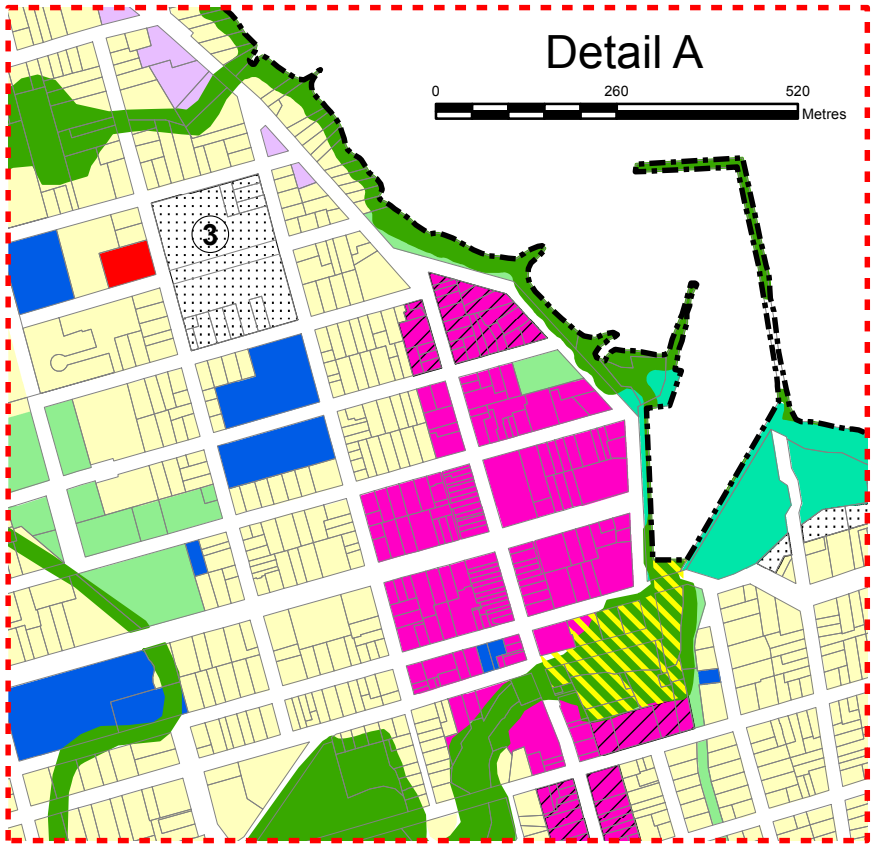
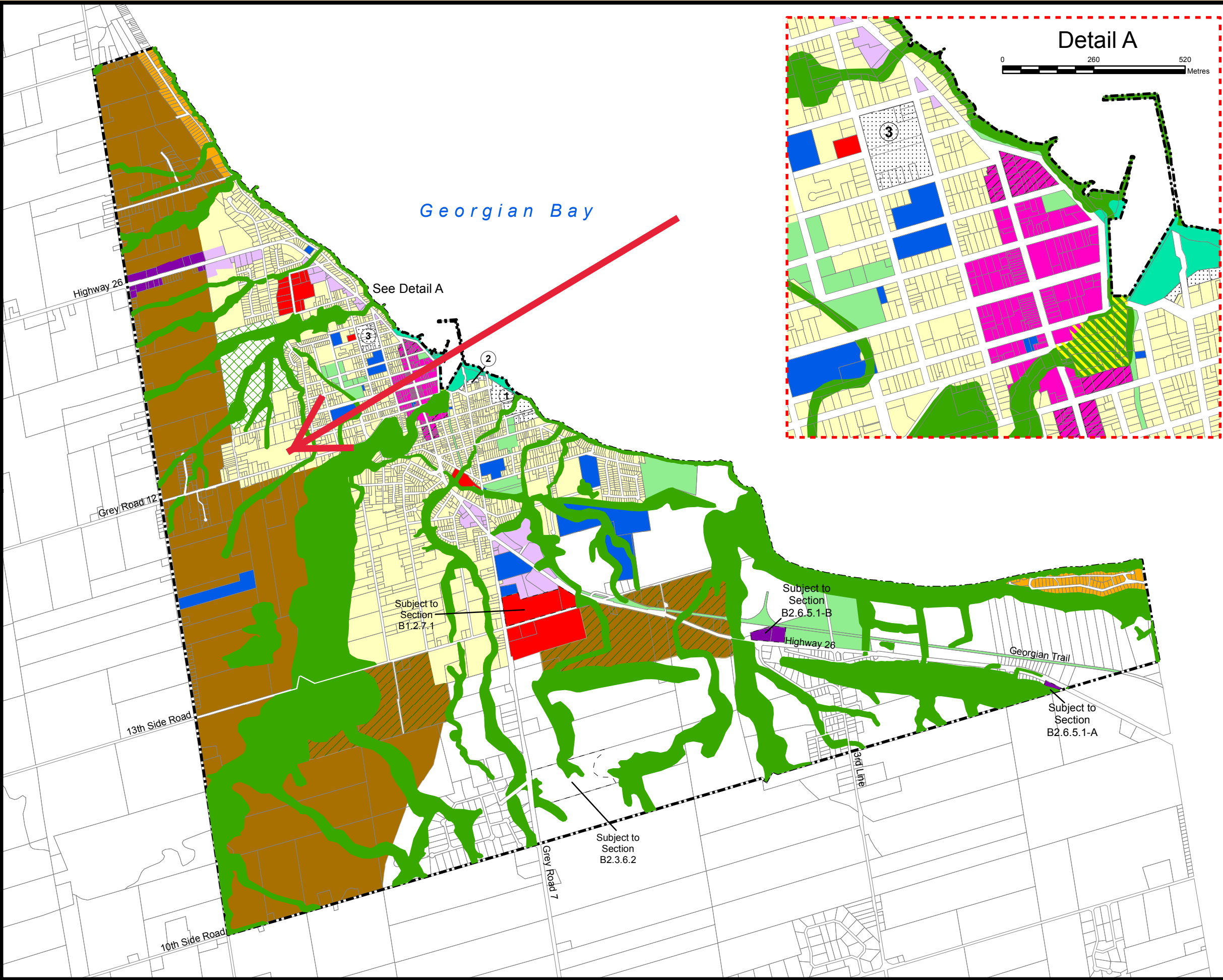


Appendix C

Municipality of Meaford Official Plan Land Use, Environmental Features, and Zoning Maps



Municipality of Meaford
Official Plan
Schedule A-1
Land Use



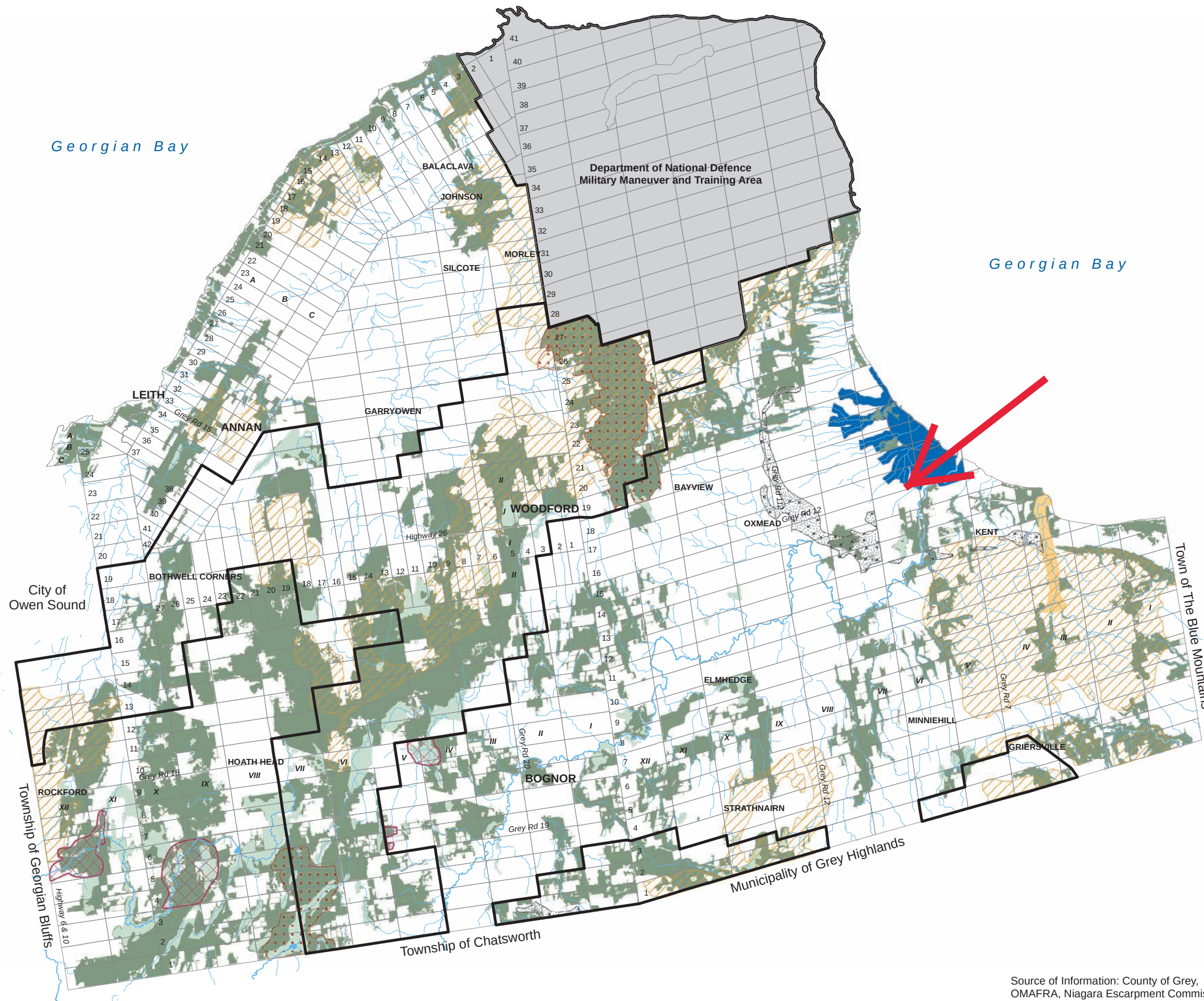
- Legend**
- Urban Living Area
 - Shoreline
 - Urban Employment Area
 - Urban Highway Commercial
 - Rural Highway Commercial
 - Downtown Core Commercial
 - Downtown Core Transitional
 - Institutional
 - Urban Area Waterfront
 - Major Open Space
 - Major Recreation
 - Two-Zone Policy Area
 - Rural
 - Special Policy Area
 - Agricultural
 - Specialty Agricultural
 - EP_Amend
 - Waste Disposal Site - Closed
 - Subject to Official Plan Section
 - Schedule Boundary
 - River/Stream

Municipality of Meaford

Official Plan

Schedule B

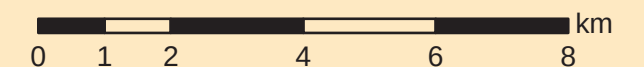
Environmental and Resource Features



Legend

- ANSI Earth
- ANSI Life
- Karst Topography
- Significant Wildlife Area
- Potential Aggregate Resource Area
- Wetlands
- Significant Woodlands Area
- Intake Protection Zones
- Niagara Escarpment Plan Boundary
- River/Stream

Note: For visual clarity the Environmental Protection Designation has not been overlain on this schedule. The location of these lands is identified on the Land Use Schedules A & A-1.



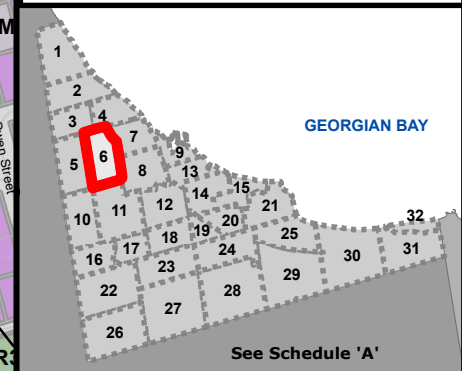
Source of Information: County of Grey, OMAFRA, Niagara Escarpment Commission, GSCA and MNR.



Municipality of Meaford



Updated: May 2021



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Meters

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Appendix D

Pre-consultation Correspondence



Melissa Fuller

From: Michael Cook <Michael.Cook@grey.ca>
Sent: September 8, 2023 3:35 PM
To: Melissa Fuller; Heather Marcks
Cc: Stephanie Lacey-Avon; Natalie Mechalko; planning@meaford.ca; Denise McCarl
Subject: RE: Proposed EIS Terms of Reference - 412 Miller Street, Meaford
Attachments: Request for Comments PRE03-22 412 Miller Street.pdf

Hi Heather/Melissa,

Thank you for providing the draft ToR for the EIS.

Please also include an assessment of the proposed stormwater management system design regarding water quality impacts to fish habitat in the ToR.

At minimum, the outlet water quality should be the same as existing and should not alter the thermal regime of the receiving watercourses that qualify as fish habitat. At minimum, an erosion and sediment control plan will be required. Please also recommend the most appropriate type of stormwater management facilities needed to accommodate this. Additional information can be found within the Stormwater Management section in the attached report provided by Tatham Engineering. I understand this may be difficult without having a draft Stormwater Management Plan design to assess. I recommend reaching out to the engineer who will be developing the design and collaborate efforts.

Please resubmit the ToR with this inclusion, or confirm you acknowledge my comments and will incorporate this assessment into the study.

If you have any questions or concerns regarding the above, please feel free to contact me directly.

Regards,

Michael Cook
Planning Ecologist
Phone: +1 519-378-4828



From: Harry Littler <harry@rbpayments.com>
Sent: Thursday, August 31, 2023 2:16 PM
To: Melissa Fuller <mfuller@birksnhc.ca>; Meaford Planning <planning@meaford.ca>
Cc: Colin Travis <colint@travisinc.ca>
Subject: RE: Proposed EIS Terms of Reference - 412 Millet Street, Meaford

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Hi Melissa, just wanted to check in and see if you need anything from me at this point.

Thanks

From: Melissa Fuller <mfuller@birksnhc.ca>
Sent: Wednesday, August 23, 2023 12:42 PM
To: planning@meaford.ca
Cc: Colin Travis <colint@travisinc.ca>; Harry Littler <harry@rbpayments.com>
Subject: FW: Proposed EIS Terms of Reference - 412 Millet Street, Meaford

Good Morning,

Just following up on this correspondence, as we hope to complete our work in the coming months.

Thank you,



Melissa Fuller, [H.B.Sc/Ecologist](#) &
Consulting Arborist
Birks Natural Heritage Consultants, Inc.
p. (705)994-4824
w. www.birksnhc.ca
a. 23 Herrell Avenue, Barrie L4N 6T5
[in](#) [f](#)

From: Heather Marcks <hmarcks@birksnhc.ca>
Sent: Friday, June 23, 2023 11:19 AM
To: dmccarl@meaford.ca
Cc: Melissa Fuller <mfuller@birksnhc.ca>
Subject: Proposed EIS Terms of Reference - 412 Millet Street, Meaford

Birks Natural Heritage Consultants, Inc. (Birks NHC) has been retained to undertake an Environmental Impact Study (EIS) for the property 412 Miller St. (See attached figure). It is our understanding that the property owner is proposing a Plan of Subdivision and that an EIS would be required due to the presence of features on the property and adjacent lands that have the potential for Species at Risk habitat, fish habitat, and Significant Wildlife Habitat. At this time, Birks NHC requests that the Town provide feedback from a natural heritage perspective, review the proposed EIS Terms of Reference, and inform Birks NHC if Town staff presence would be required for delineation of the drainage feature.

EIS TERMS OF REFERENCE:

SITE ASSESSMENT

- Review available background information for the property and surrounding lands (*i.e.*, within 120 metres);
- Review policies related to the natural heritage components of the proposed development, including municipal and provincial policies;
- Conduct field surveys to document existing natural heritage features, functions, and species. Surveys include:
 - Classification of vegetation communities;
 - Single site visit to collect vegetation community and wildlife habitat information;
 - Assessment of any drainage features within/adjacent to property for fish habitat;

- Conduct a Species at Risk habitat assessment for the property to determine if appropriate habitat is present to allow Species at Risk to potentially be present, including an investigation of potential bat roost structures and two evening bat exit surveys (June and July 2023).
- Map any natural heritage features within the property, including characterization of vegetation communities.

ENVIRONMENTAL IMPACT STUDY REPORT

Prepare one EIS report which will include the following:

- The scope of proposed development;
- Description of the ELC communities on the property;
- Assessment of Significant Wildlife Habitat as per the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF, 2015);
- An outline of any significant natural heritage features or functions within the study area;
- Mapping outlining:
 - The approximate boundary of the property and study area
 - Ecological Land Classification communities
 - The locations of any identified natural heritage features or functions in the study area
 - The proposed development plan
- An outline of any potential direct/indirect impacts to those features or functions associated with the proposed development; and
- Conclusion, recommendations and mitigations that align with the overarching policy framework of the study area.

Thank You,



Heather Marcks, HB.Sc, M.F.C. /Ecologist
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From: [Heather Marcks](#)
To: [Heather Marcks](#)
Subject: RE: GSCA Comments (P22591)- PRE03-2022, 412 Miller Street
Date: May 26, 2023 12:23:50 PM
Attachments: [image001.png](#)
[image002.png](#)

From: Colin Travis <colint@travisinc.ca>
Sent: Wednesday, December 21, 2022 10:16 AM
To: Jeremy Acres <jacres@tathameng.com>; Harry Littler <harry@rbpayments.com>; Paul Thomsen (paul@zeptsurveyors.com) <paul@zeptsurveyors.com>; Melissa Fuller <mfuller@birksnhc.ca>
Subject: FW: GSCA Comments (P22591)- PRE03-2022, 412 Miller Street

Harry,
Thanks for forwarding GSCA comments. As I noted to Jeremy this morning, with these I think Denise can now complete her precon comments package for us and we can have a team meeting to go over work program for 2023 along with timing.

I'll follow up with Denise and my office will set up a zoom call for early January.

Colin

Colin Travis MCIP RPP
Travis & Associates
PO Box 323
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P 705-446-9917
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From: Harry Littler <harry@rbpayments.com>
Sent: December 20, 2022 1:46 PM
To: Justine Lunt <j.lunt@greysauble.on.ca>
Cc: Denise McCarl <dmccarl@meaford.ca>; Colin Travis <colint@travisinc.ca>
Subject: Re: GSCA Comments (P22591)- PRE03-2022, 412 Miller Street

Hey guys , just adding my planner Colin here. Thanks for your attention here much appreciated.

Merry Christmas and happy holidays.

Harry

Sent from my iPhone

On Dec 20, 2022, at 9:51 AM, Justine Lunt <j.lunt@greysauble.on.ca> wrote:

Good afternoon,

GSCA staff have completed a full pre-consultation review, including site visit, for the above-noted proposal.

1. Ontario Regulation 151/06

a) Based on the GSCA's review, the subject property is regulated under Ontario Regulation 151/06. Permits will be required from GSCA for the site alteration and development occurring on the subject lands within the regulated area. The regulated area is associated with what appears to be a seep feature originating on the subject lands that flows north forming into a watercourse. There was an area adjacent to this that was difficult to assess as it appeared to be used for storage of debris, we recommend this area be evaluated in more detail through subsequent studies.

2. Natural Hazards

a) Based on the GSCA's review, there are natural hazards identified on the subject lands. The hazard is associated with the seep feature and watercourse on the subject property and its flood and erosion potential.

b) GSCA is recommending that a hydrogeological assessment be completed in support of development on the site. We note that the findings of this study may have implications on the placement of the proposed stormwater facility and on the designation of hazardous area on the site. As currently proposed, the stormwater management block is located in the area of the property where the groundwater table appears to be at its highest as it turns into a spring.

c) Any proposed development will need to be located outside of the flood and erosion hazards established on the subject lands. From the current submitted site plan, this appears to be addressed, however as noted above, this may be subject to change based on the results of a hydrogeological assessment.

3. Natural Heritage and Water

a) Adjacent lands to fish habitat, the potential for threatened or endangered species, and potential for significant wildlife habitat exists on the property, as confirmed through the initial natural heritage constraints analysis completed for the site. GSCA generally agrees with this preliminary assessment and would recommend a scoped environmental impact study be completed to address these features.

b) Natural heritage features of potential concern include lands adjacent to fish habitat associated with the watercourse originating on site. A minimum setback of 15-metres from the watercourse is advised in order to prevent negative impacts, and riparian vegetation should be maintained within this corridor.

c) Given the presence of a seep and the high groundwater levels on site, a hydrogeological assessment should be completed for the site. The results of this study may have implications for the overall layout of the site, so it should be completed as soon as possible to ensure that its results can be appropriately considered in the design of the site and the stormwater management approach. We also note that the area on the subject lands around where the seep forms was very overgrown and there was some debris piled into this area that made evaluation by our office difficult. It is possible that the seep feature could also be present under the debris, this area should be further reviewed through this study.

d) Runoff from the site should be treated to an enhanced level given influence on fish habitat and eventual outlet to Georgian Bay.

e) We recommend a stormwater management report be submitted in support of this proposal, to ensure appropriate sediment and erosion control measures are implemented to prevent deleterious substances from being transported off-site to the watercourse, to ensure no exacerbation of any erosion potential related to the banks around the watercourse, and to ensure existing drainage patterns are maintained so as to not create any impacts to neighbouring properties as a result of the significant increase in impervious area proposed across the site. The results of a hydrogeological assessment should be taken into consideration, once available.

f) GSCA notes that we anticipate that we may be unable to comment further on these items once the formal application is made, based on the current direction from the Province. However, we anticipate more clarity on this in the coming weeks.

Please be advised that these comments reflect existing in-office information as it pertains to the subject property.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Justine Lunt

Environmental Planner

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the public in a limited capacity. Most of GSCA's conservation areas continue to remain open. As this situation continues to evolve, please monitor our website at www.greysauble.on.ca for up-to-date information.

For after-hours non-911 emergencies please call 226-256-8702. Please do not use this number for planning related inquiries. For information regarding properties, visit our website at www.greysauble.on.ca.

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